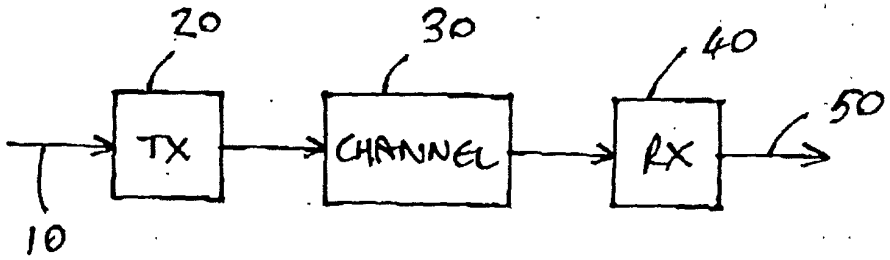

FIG. 1

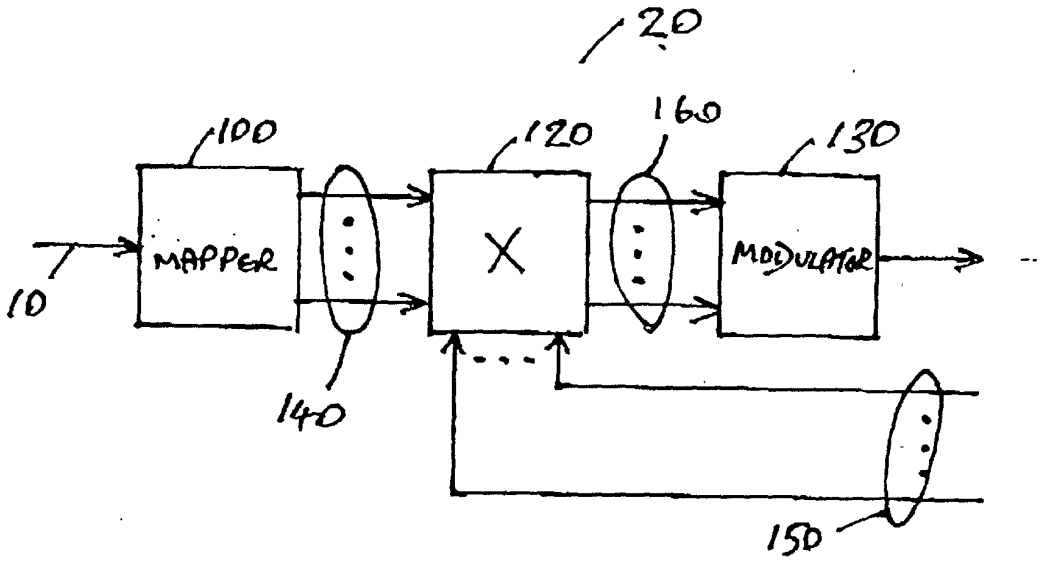

FIG. 2.

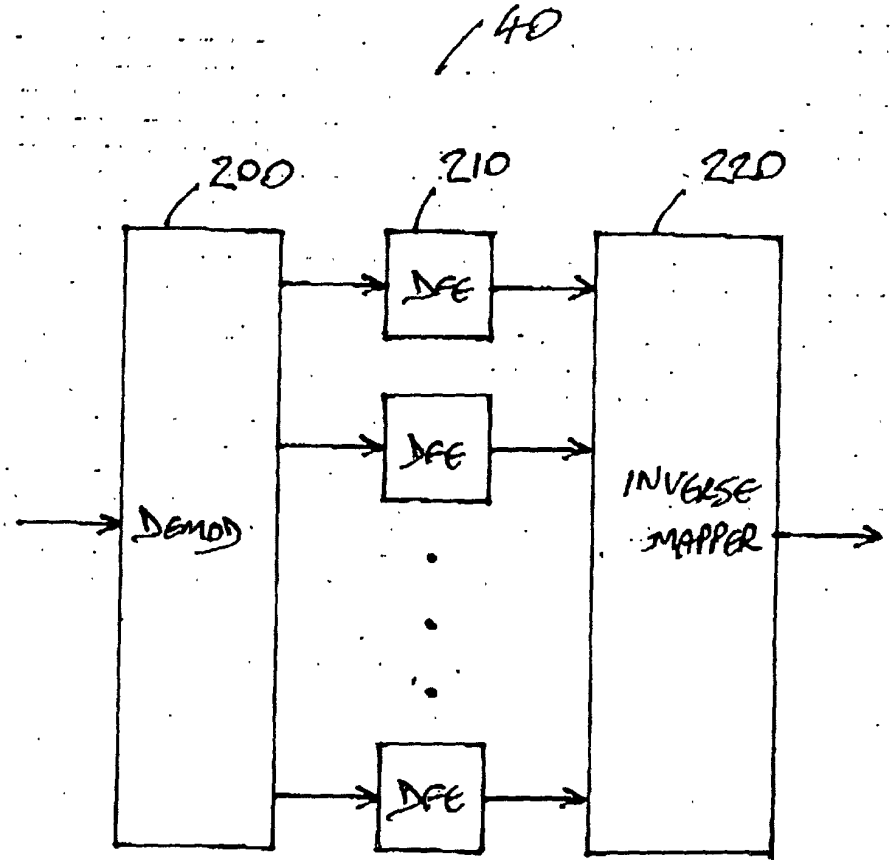

FIG. 3

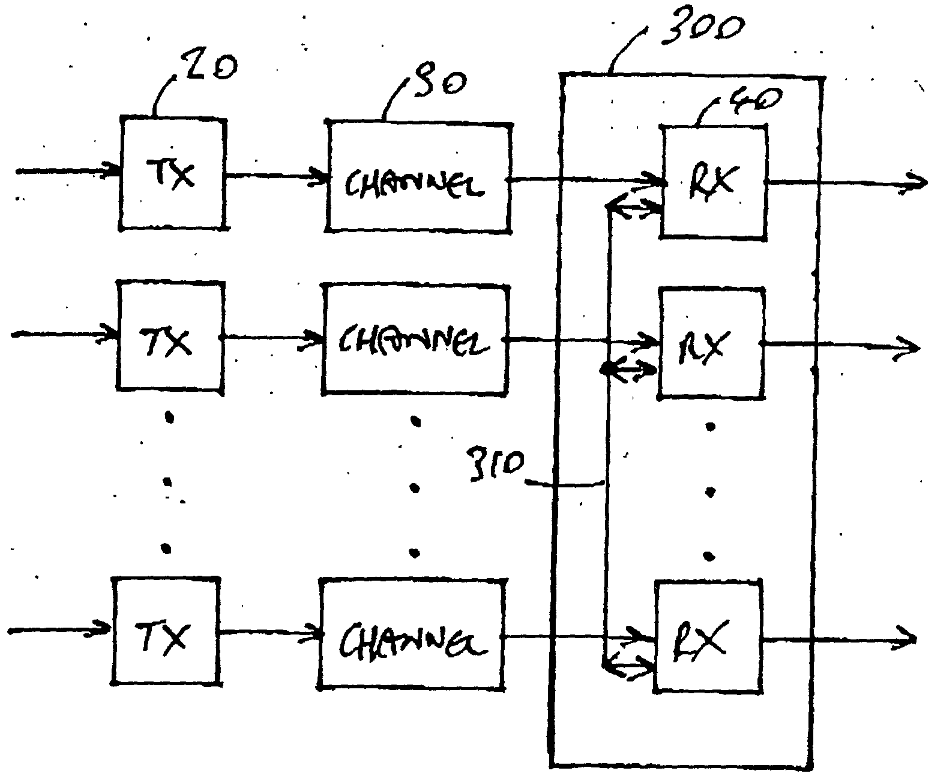

FIG. 4

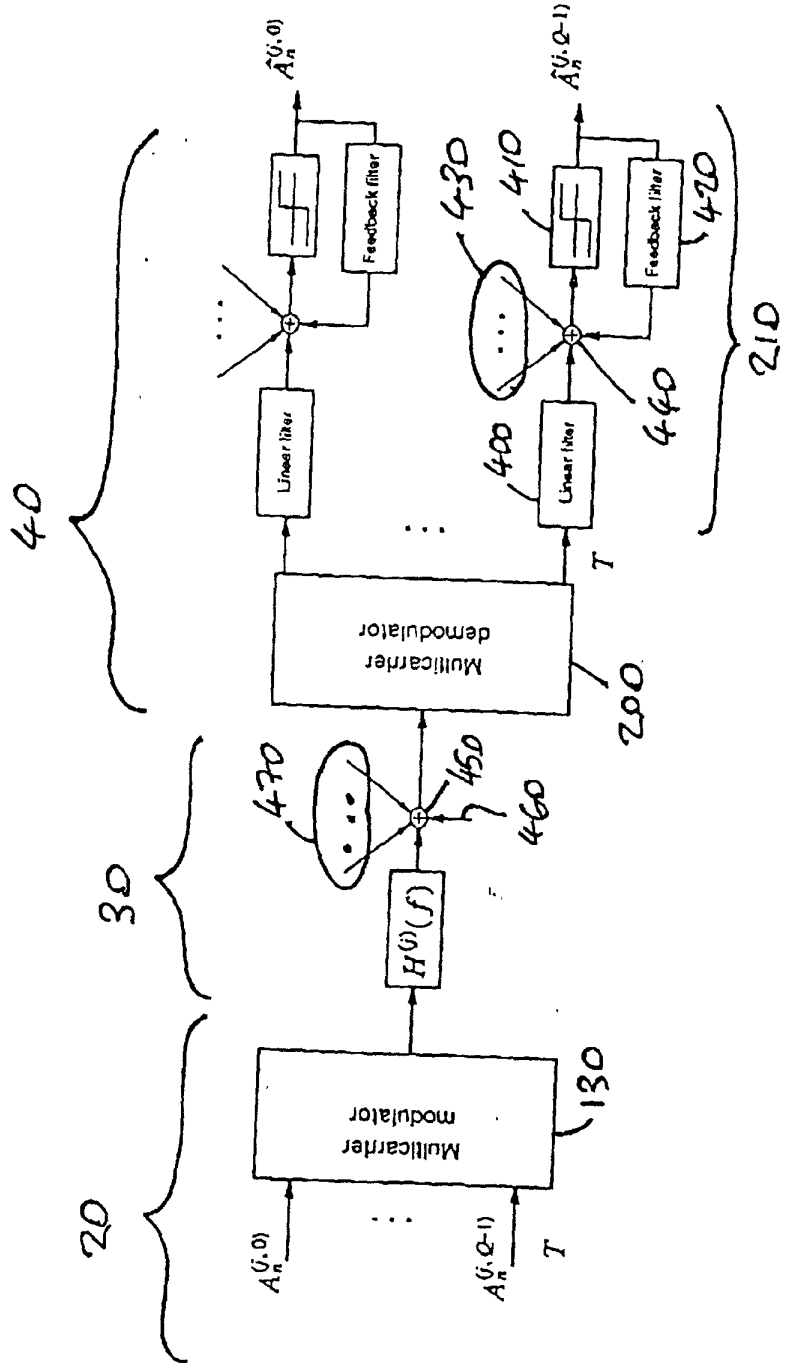
20
30
40
210
Multicarrier modulator
130
$A_n^{(i,0)}$
$A_n^{(i,Q-1)}$
T
$H^{(i)}(f)$
470
450
460
Multicarrier demodulator
200
T
Linear filter
400
Feedback filter
420
410
430
440
$\hat{A}_n^{(i,0)}$
$\hat{A}_n^{(i,Q-1)}$

FIG. 5

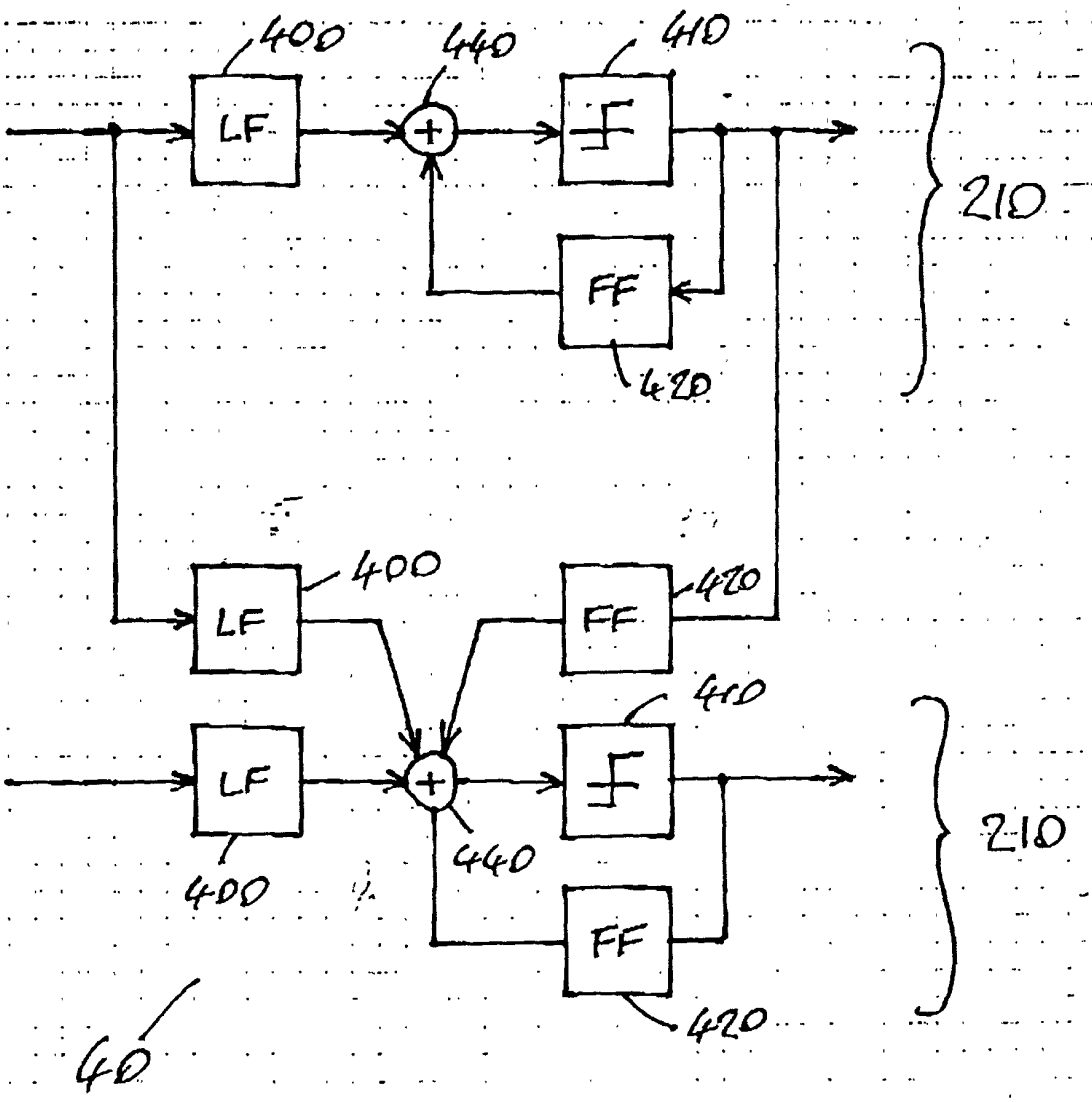

FIG. 6

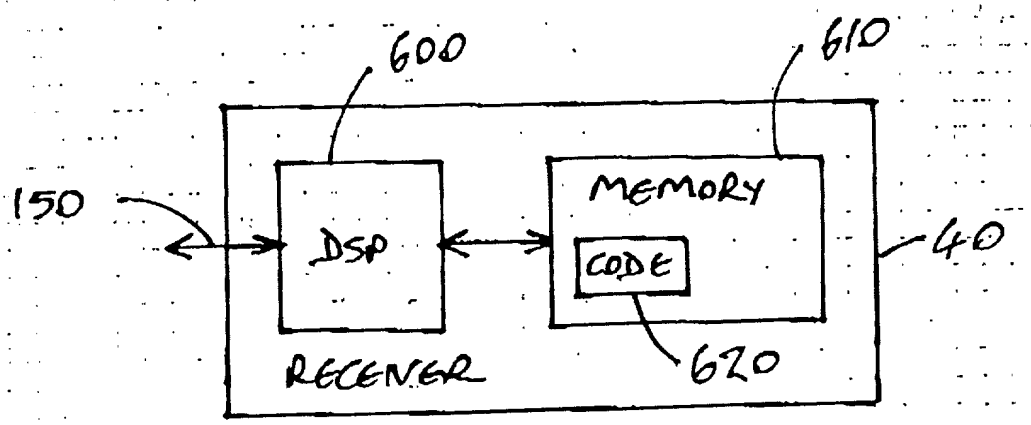
600
610
150
DSP
MEMORY
CODE
40
RECEIVER
620

FIG. 7

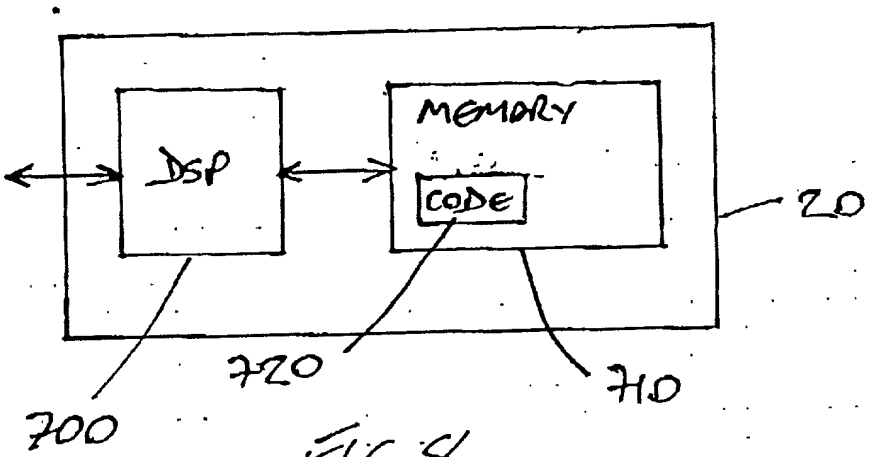
DSP
MEMORY
CODE
20
720
710
700

FIG. 8

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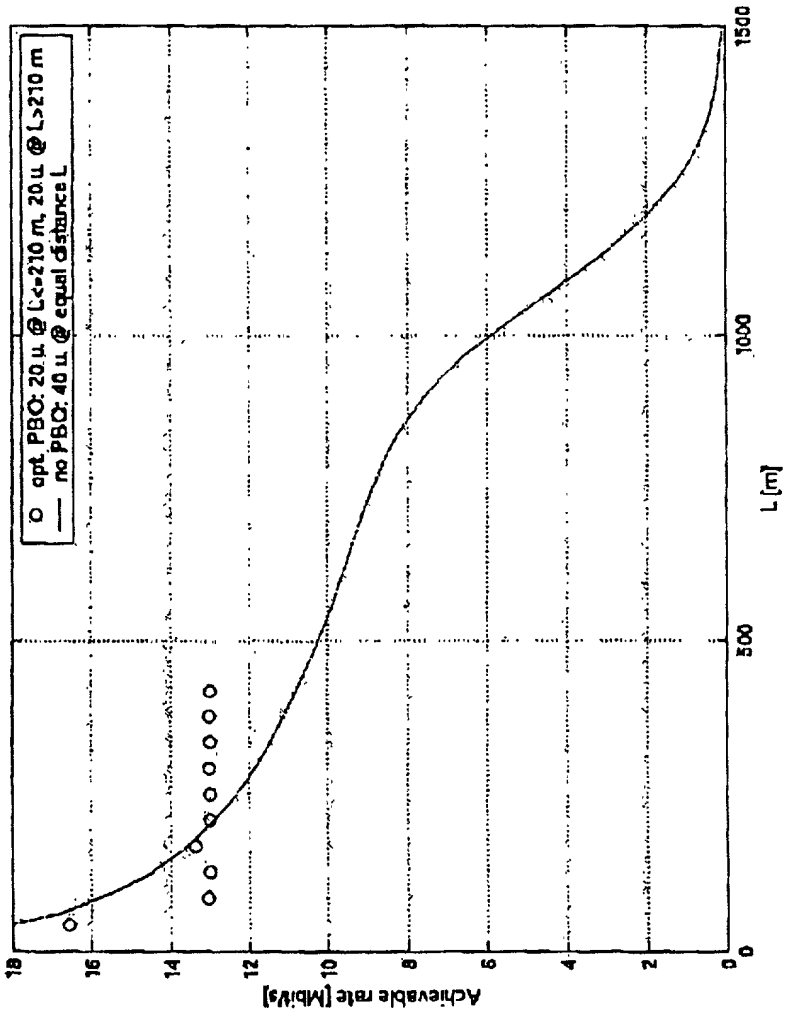

FIG. 9.

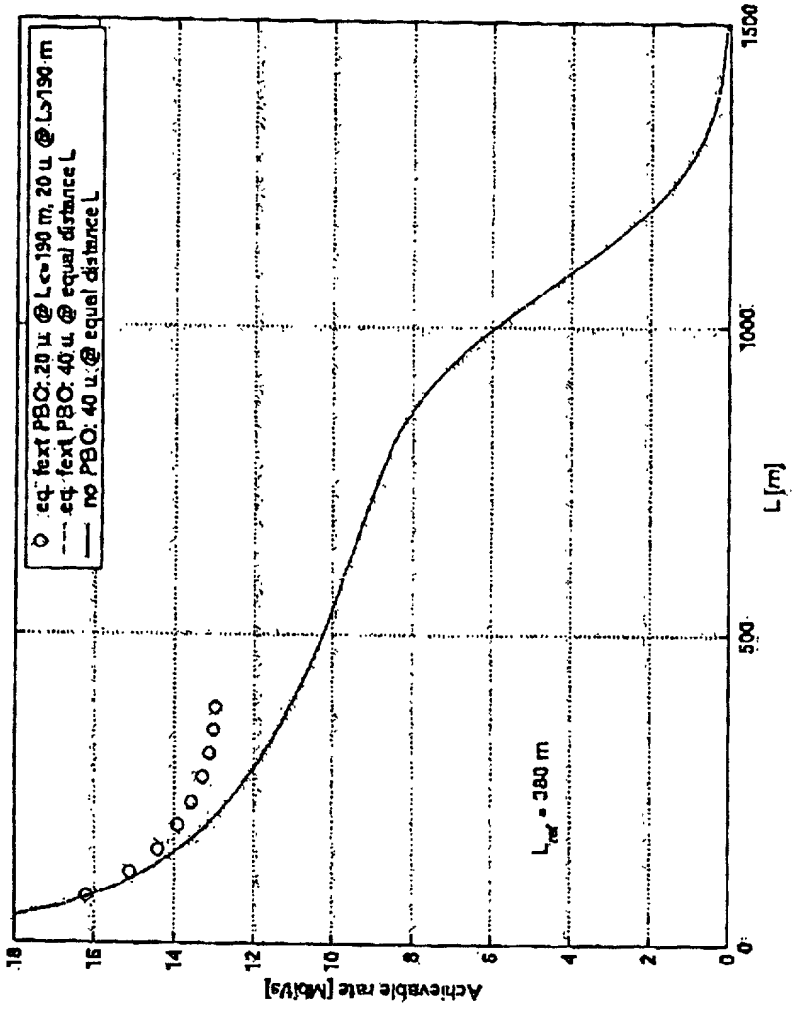
eq. text PBO: 20 u. @ L<=190 m, 20 u. @ L>190 m
eq. text PBO: 40 u. @ equal distance L
no PBO: 40 u. @ equal distance L
L_{ref} = 380 m
Achievable rate [Mbit/s]
L [m]
0
2
4
6
8
10
12
14
16
18
500
1000
1500

Fig. 10.

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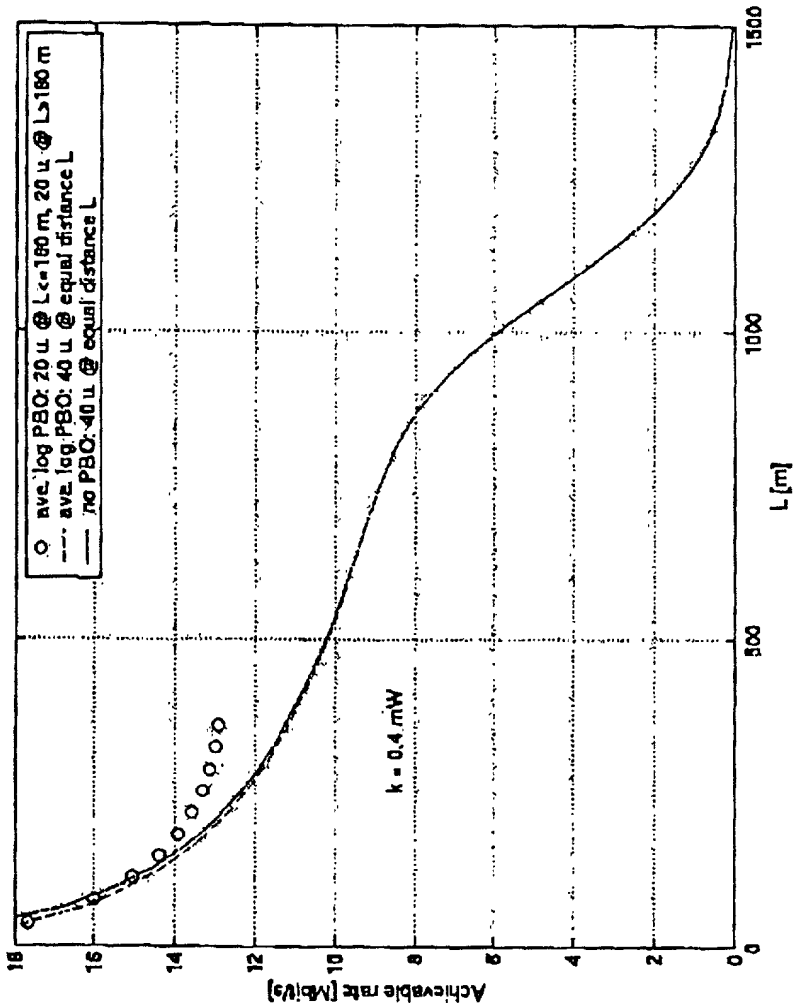

FIG. 11

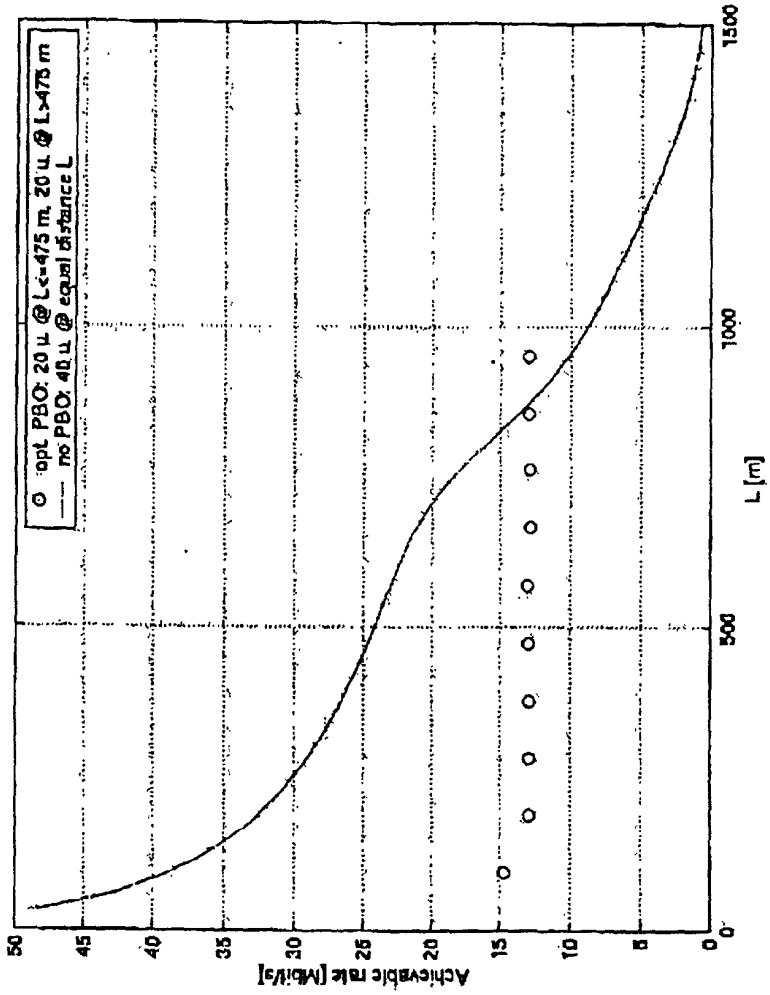

FIG. 12

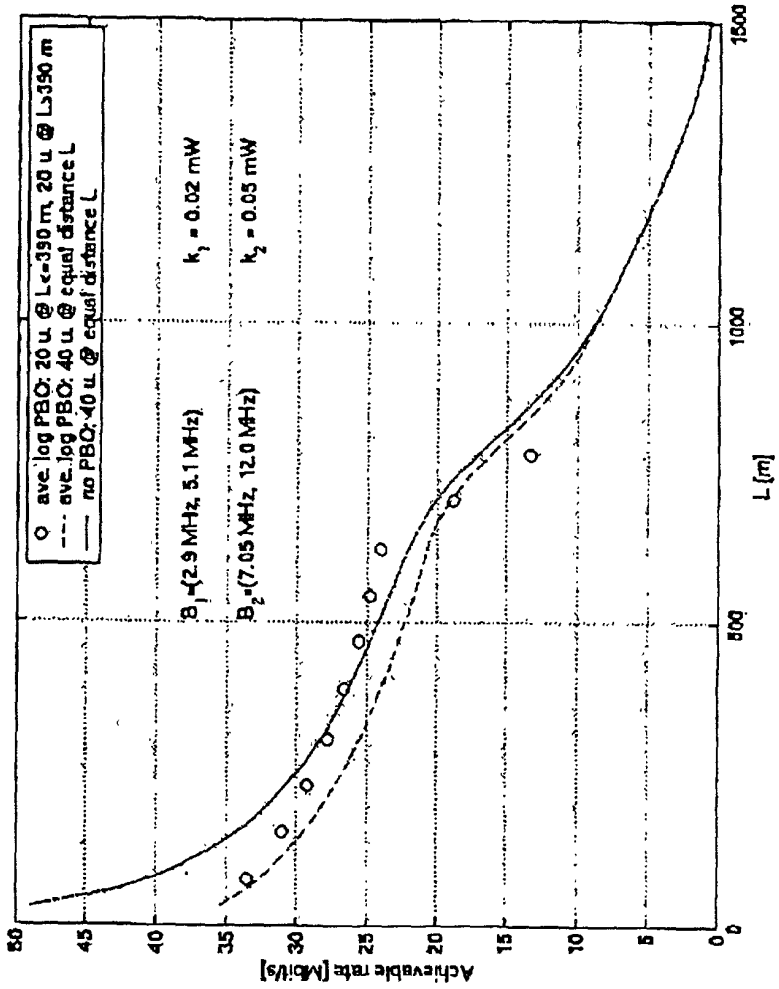
ave. log PBO: 20 u @ L<=390 m, 20 u @ L>390 m
ave. log PBO: 40 u @ equal distance L
no PBO: 40 u @ equal distance L
k1 = 0.02 mW
k2 = 0.03 mW
B1=(2.9 MHz, 5.1 MHz)
B2=(7.05 MHz, 12.0 MHz)
Achievable rate [Mbit/s]
L [m]
0
5
10
15
20
25
30
35
40
45
50
500
1000
1500

FIG. 13

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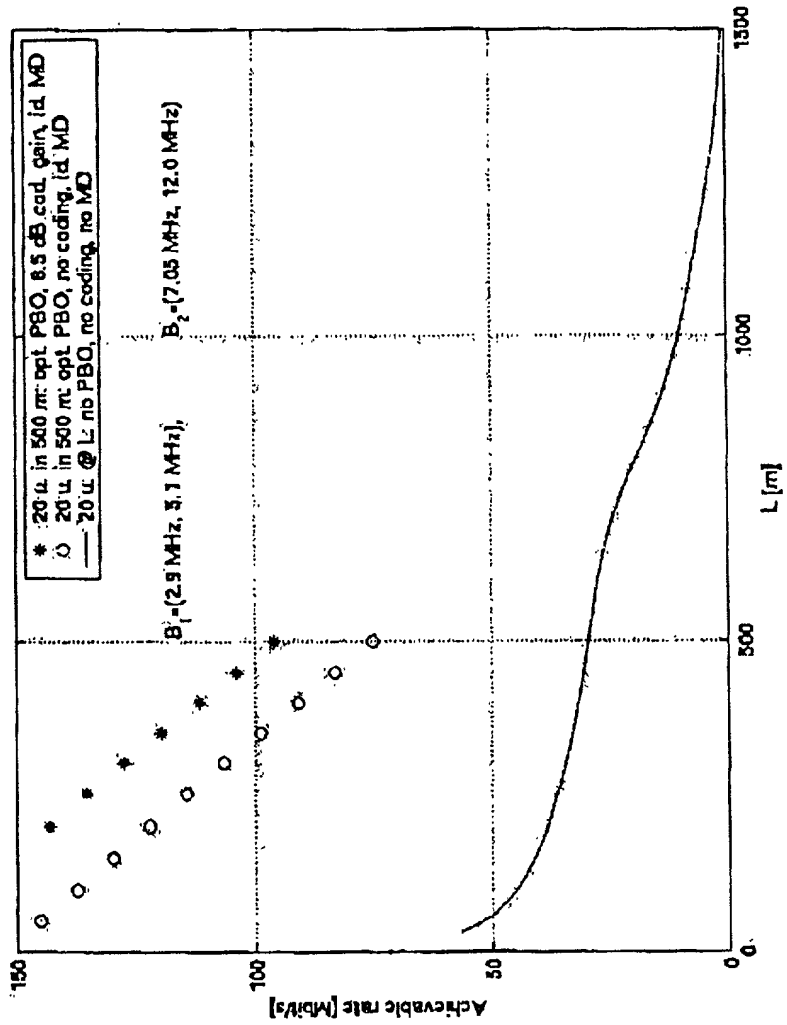

FIG. 14

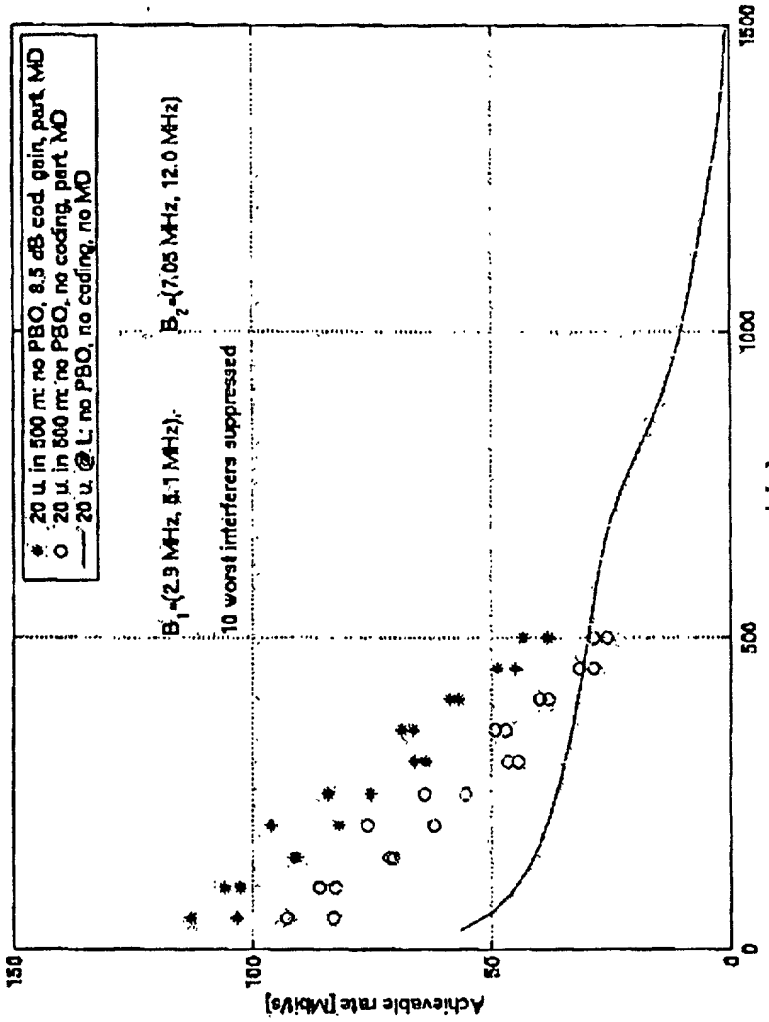
20 u. in 500 m: no PBO, 8.5 dB cod. gain, part. MD
20 u. in 500 m: no PBO, no coding, part. MD
20 u. @ L: no PBO, no coding, no MD
B1 (2.9 MHz, 5.1 MHz),
B2 (7.05 MHz, 12.0 MHz)
10 worst interferers suppressed
Achievable rate [Mbit/s]
L [m]
150
100
50
0
0
500
1000
1500

FIG. 15

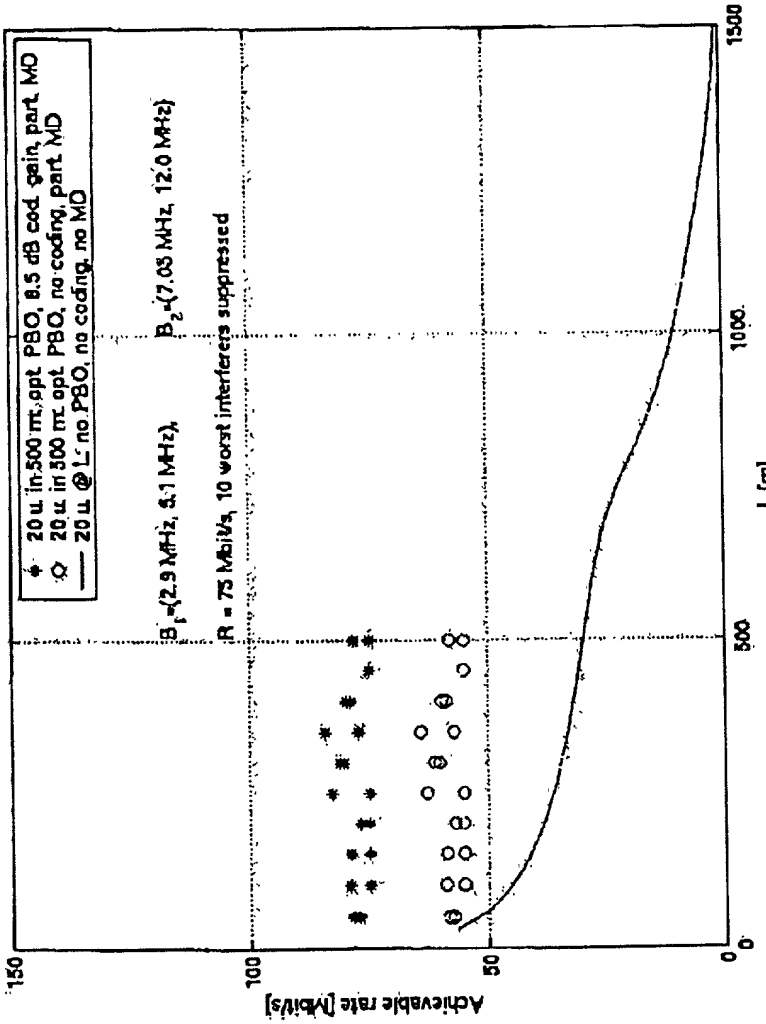
20 u. in 500 m, opt. PBO, 8.5 dB cod. gain, part. MD
20 u. in 500 m opt. PBO, no coding, part. MD
20 u. @ L, no PBO, no coding, no MD
B1=(2.9 MHz, 8.1 MHz)
B2=(7.05 MHz, 12.0 MHz)
R = 75 Mbit/s, 10 worst interferers suppressed
Achievable rate [Mbit/s]
L [m]
0
50
100
150
500
1000
1500

FIG. 16.

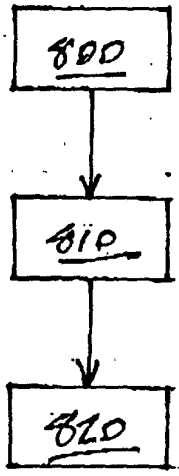

FIG. 17

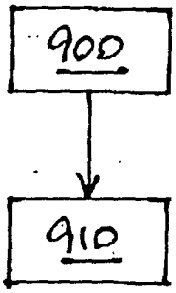

FIG. 18

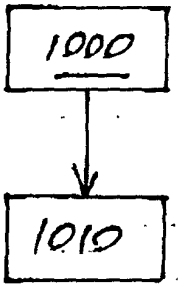

FIG. 19